AD-A101 526 ARMY ELECTRONICS RESEARCH AND DEVELOPMENT COMMAND WS--ETC F/6 4/2
17901AT HONEST JOHN MISSILE NUMBERS, 349, 351 AND 356 ROUND NUM--ETC(U)
JUN 81 D C KELLER

UNCLASSIFIED ERADCOM/ASL NL

LEVEL II

12

METEOROLOGICAL DATA REPORT

17901AT HONEST JOHN
Missile No. 349/351/356
Round No. 670ASL/671ASL/672ASL
3 June 1981

by

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ATMOSPHERIC SCIENCES LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO

ECOM

UNITED STATES ARMY ELECTRONICS COMMAND

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

Meteorological data gathered for the launching of the 17901AT HONEST JOHN, Missile Numbers 349, 351, and 356, Round Numbers 670ASL, 671ASL, and 672ASL are presented in tabular form.

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CONTENTS

INTRODUCTION

17901AT HONEST JOHN, Missile Number 349, 351, and 356, Round Numbers 670ASL, 671ASL, and 672ASL, were launched from LC-33, White Sands Missile Range (WSMR), New Mexico, at 1021, 1043, and 1330 MDT, 3 June 1981. The scheduled launch times were 1000, 1030, and 1330 MDT.

DISCUSSION

Meteorological data were recorded and reduced by the White Sands Meteorological Team, Atmospheric Sciences Laboratory (ASL), White Sands Missile Range, New Mexico. The data were obtained by the following methods:

1. Observations

a. Surface:

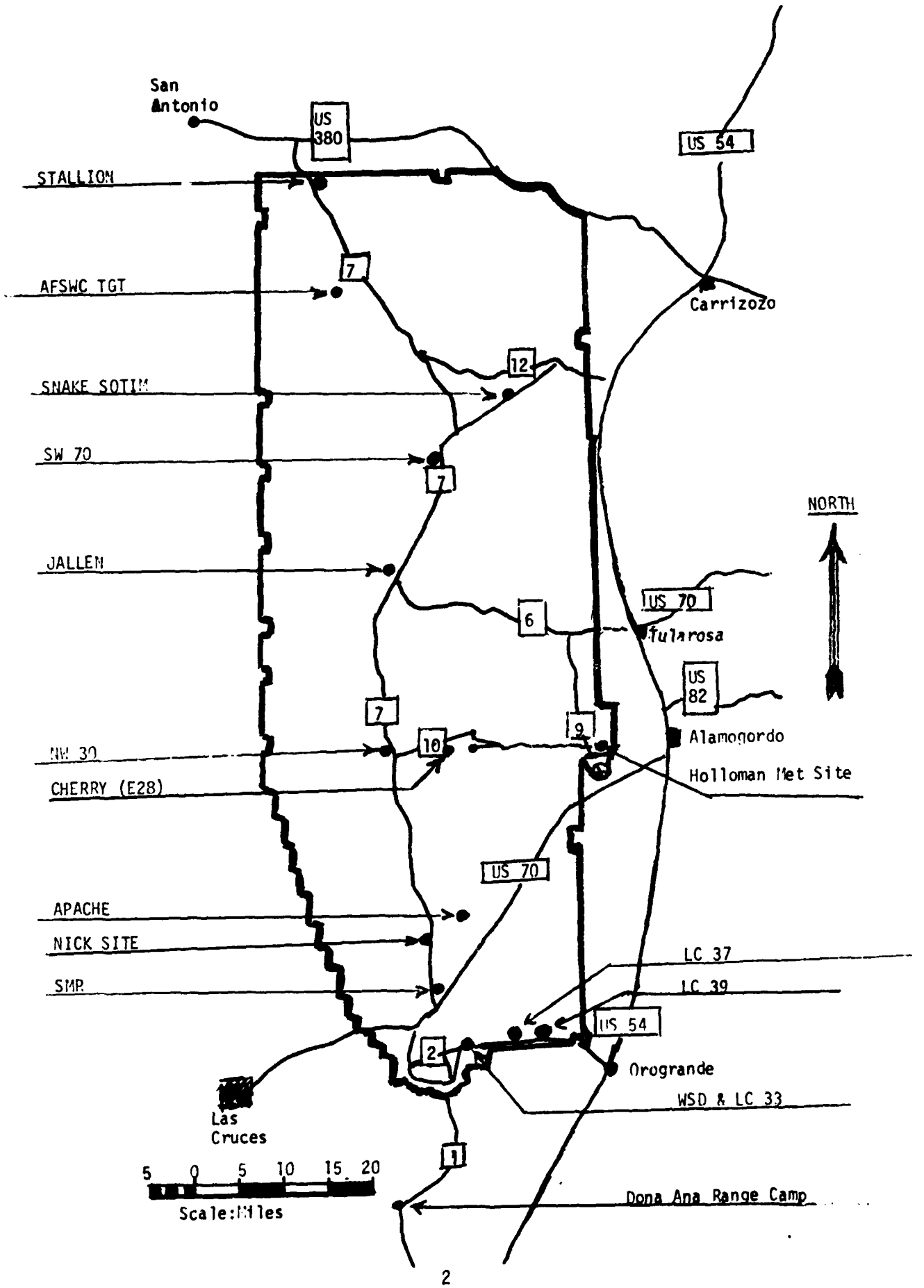
(1) Standard surface observations to include pressure, temperature (°C), relative humidity, dew point (°C), density (gm/m^3), wind direction and speed, and cloud cover were made at the LC-33 Met Site at T-o minutes.

(2) Anemometer data were provided from existing pole-mounted and tower-mounted anemometers at LC-33. Mointor of wind speed and direction from one anemometer was also provided in the launch control room.

b. Upper Air:

(1) Air structure data (rawinsonde) were collected at the following Met Sites:

SITE AND TIME	
WSD	0847 MDT
LC-37	1015 MDT
WSD	1230 MDT


San Antonio
US 380
US 54
STALLION
AFSWC TGT
Carrizozo
SNAKE SOTIM
SW 70
JALLEN
NORTH
US 70
Tularosa
US 82
Alamogordo
NW 30
CHERRY (E28)
Holloman Met Site
US 70
APACHE
NICK SITE
SMP
LC 37
LC 39
US 54
Orogrande
WSD & LC 33
Las Cruces
5 0 5 10 15 20
Scale: Miles
Dona Ana Range Camp

PROJECT SURFACE OBSERVATION

TABLE 1 STATION LC-33

DATE 3 (DAY) June (MONTH) 81 (YEAR) X= 484,982.64 Y=185,957.73 H=3983.00

TIME M D I	PRESSURE mbs	TEMPERATURE °F	TEMPERATURE °C	DEW POINT °F	DEW POINT °C	RELATIVE HUMIDITY %	DENSITY gm/m³	WIND DIRECTION degs Tn	WIND SPEED kts	WIND CHARACTER kts	VISIBILITY
1021	874.5		27.7		5.5	24	1007	100	01		50+
1043	874.4		27.5		5.2	24	1006	100	01		50+
1330	873.0		33.0		4.7	17	986	275	06		50+

OBSTRUCTIONS TO VISIBILITY	CLOUDS 1st LAYER AMT	1st LAYER TYPE	1st LAYER HGT	2nd LAYER AMT	2nd LAYER TYPE	2nd LAYER HGT	3rd LAYER AMT	3rd LAYER TYPE	3rd LAYER HGT	REMARKS
	0	CU	6500	-	-	-	3	CS	25000	
	0	CU	7000	-	-	-	6	CS	25000	
	4	CU	8000	-	-	-	2	CI	25000	

PSYCHROMETRIC COMPUTATION

TIME: MDT	1021	1043	1330
DRY BULB TEMP.	27.7	27.5	33.0
WET BULB TEMP.	14.5	14.3	16.0
WET BULB DEPR.	13.2	13.2	17.0
DEW POINT	5.5	5.2	4.7
RELATIVE HUMID.	24	24	17

TABLE 2 LC-33 FIXED POLE ANEMOMETER MEASURED WINDS

1021 MDT
3 June 1981

POLE #1 X485,874.29 Y185,958.90 H4018.74 38.7 ft. AGL			POLE #2 X485,874.93 Y186,012.00 H4033.57 53.0 ft. AGL			POLE #3 X485,877.29 Y186,116.06 H4063.92 83.6 ft. AGL		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
T_{-30}	CALM	CALM	T_{-30}	021	02	T_{-30}	063	03
T_{-20}	CALM	CALM	T_{-20}	034	02	T_{-20}	065	03
T_{-10}	052	02	T_{-10}	034	01	T_{-10}	055	03
$T_{0.0}$	052	01	$T_{0.0}$	034	01	$T_{0.0}$	054	03
T_{+10}	052	03	T_{+10}	050	02	T_{+10}	056	04

LC-33 METEOROLOGICAL TOWER ANEMOMETER MEASURED WINDS (202 FT TOWER)

LEVEL #1, 12 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #2, 62 FEET X484.982.64, Y185,057.73, H3983.00 (base)		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
T-30	CALM	CALM	T-30	CALM	CALM
T-20	CALM	CALM	T-20	CALM	CALM
T-10	CALM	CALM	T-10	CALM	CALM
T0.0	CALM	CALM	T0.0	CALM	CALM
T+10	111	01	T+10	CALM	CALM

LEVEL #3, 102 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #4, 202 FEET X484,982, Y185,057.73, H3983.00 (base)		
-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
T-30	CALM	CALM	T-30	CALM	CALM
	CALM	CALM	T-20	CALM	CALM
	CALM	CALM	T-10	CALM	CALM
	128	01	T0.0	CALM	CALM
	128	01	T+10	CALM	CALM

TABLE 3 LC-33 FIXED POLE ANEMOMETER MEASURED WINDS

1043 MDT
3 June 1981

POLE #1 X485,874.29 Y185,958.90 H4018.74 38.7 ft. AGL			POLE #2 X485,874.93 Y186,012.00 H4033.57 53.0 ft. AGL			POLE #3 X485,877.29 Y186,116.06 H4063.92 83.6 ft. AGL		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
T-30	CALM	CALM	T-30	CALM	CALM	T -30	088	02
T-20	CALM	CALM	T-20	095	03	T -20	088	02
T-10	CALM	CALM	T-10	099	02	T -10	CALM	CALM
T0.0	083	01	T0.0	CALM	CALM	T 0.0	CALM	CALM
T+10	083	01	T+10	106	01	T +10	CALM	CALM

TABLE LC-33 METEOROLOGICAL TOWER ANEMOMETER MEASURED WINDS (202 FT TOWER)

LEVEL #1, 12 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #2, 62 FEET X484.982.64, Y185,057.73, H3983.00 (base)		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
T-30	051	03	T -30	083	01
T-20	045	03	T -20	080	02
T-10	088	02	T -10	081	03
T0.0	CALM	CALM	T 0.0	107	03
T+10	CALM	CALM	T +10	091	03

LEVEL #3, 102 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #4, 202 FEET X484,982, Y185,057.73, H3983.00 (base)		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
T-30	079	02	T -30	081	03
T-20	081	02	T -20	081	03
T-10	081	02	T -10	082	03
T0.0	113	01	T 0.0	079	03
T+10	113	01	T +10	079	03

TABLE 4 LC-33 FIXED POLE ANEMOMETER MEASURED WINDS

1330 MDT
3 June 1981

POLE #1 X485,874.29 Y185,958.90 H4018.74 38.7 ft. AGL			POLE #2 X485,874.93 Y186,012.00 H4033.57 53.0 ft. AGL			POLE #3 X485,877.29 Y186,116.06 H4063.92 83.6 ft. AGL		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
T-30	144	05	T -30	165	08	T -30	160	03
T-20	153	12	T -20	203	12	T -20	123	02
T-10	273	03	T -10	264	15	T -10	229	03
T0.0	293	07	T 0.0	287	10	T 0.0	358	05
T+10	270	08	T +10	273	07	T +10	300	06

TABLE LC-33 METEOROLOGICAL TOWER ANEMOMETER MEASURED WINDS (202 FT TOWER)

LEVEL #1, 12 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #2, 62 FEET X484.982.64, Y185,057.73, H3983.00 (base)		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
T-30	269	04	T -30	264	04
T-20	270	04	T -20	255	06
-10	258	04	T -10	223	04
0.0	276	05	T 0.0	238	06
T+10	248	08	T +10	231	08

LEVEL #3, 102 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #4, 202 FEET X484,982, Y185,057.73, H3983.00 (base)		
-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
T-30	243	07	T -30	248	07
- 0	246	08	T -20	245	07
-1	225	09	T -10	219	09
.0	225	08	T 0.0	217	08
10	224	09	T +10	223	08

TABLE 5

AIMING MET MESSAGES
3 June 1981

WSD 0847 MDT
METCM1324064
031480122874
00178003 29710874
01252005 29580864
02580004 29700840

LC-37 1015 MDT
METCM1324063
031620124873
00107003 29960873
01039006 29820863
02025004 29650838

WSD 0847 MDT
METB31324064
031480122837
001803 031837
012505 029839
025802 036835
030203 038834
046402 037835
055104 036836
064509 031840

LC-37 1015 MDT
METB31324063
031620124828
001103 040828
010406 037831
020304 037831
030406 036833
045702 036834
054805 035835
064409 029840

WSD 1230 MDT
METCM1324064
031850122874
00427004 30650874
01453004 30500864
02497002 30170840

STATION ALTITUDE 3989.00 FEET MSL
3 JUNE 81 0847 HRS MDT
ASCENSION NO. 369

SIGNIFICANT LEVEL DATA
154002036J
WHITE SANDS
TABLE 6

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	DEWPOINT	REL.HUM. PERCENT
874.2	3989.0	22.8	6.6	35.0
852.8	4694.3	20.1	6.8	42.0
850.0	4787.8	21.6	8.1	42.0
843.4	5010.6	23.5	9.1	40.0
700.0	10238.4	10.8	.2	48.0
627.8	13182.8	3.2	-4.3	58.0
586.0	15002.2	-2.3	-7.8	66.0
553.6	16478.5	-5.8	-16.9	41.0
500.0	19073.7	-11.8	-21.0	46.0
489.8	19593.2	-11.6	-23.3	37.0
416.4	23621.1	-20.0	-28.8	45.0
400.0	24596.8	-22.6	-27.2	66.0
354.2	27495.7	-29.3	-32.7	72.0
328.6	29241.6	-34.4	-38.2	68.0
300.0	31319.0	-38.8	-44.2	56.0
267.6	33871.6	-44.4	-49.7	55.0
250.0	35359.2	-48.6		
208.2	39245.7	-57.4		
200.0	40082.4	-57.4		
193.6	40761.1	-56.5		
188.8	41285.1	-57.4		
175.0	42872.1	-55.7		
166.2	43953.3	-56.5		
157.6	45066.1	-56.0		
150.0	46101.1	-56.6		
127.2	49523.4	-59.9		
108.4	52915.5	-60.3		
100.0	54475.9	-60.0		
89.4	56784.5	-60.0		
83.4	58203.7	-63.7		
77.8	59620.7	-60.9		
70.0	61783.6	-62.0		
50.0	68745.2	-56.6		
40.8	73033.4	-54.0		
30.0	79661.1	-47.2		
20.0	88684.3	-39.9		
13.2	98100.6	-39.2		
10.0	104477.8	-33.9		
8.4	108568.5	-29.3		

STATION ALTITUDE 3989.00 FEET MSL
3 JUNE 81 0847 HRS MDT
ASCENSION NO. 369

UPPER AIR DATA
154002U369
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

TABLE 7

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
3989.0	874.2	22.8	6.6	35.0	1024.7	671.6	100.0	2.9	1.000270
4000.0	873.9	22.8	6.6	35.1	1024.4	671.6	99.6	2.9	1.000270
4500.0	858.6	20.8	6.8	40.1	1013.0	669.4	75.7	2.1	1.000269
5000.0	843.7	23.4	9.1	40.1	986.0	672.6	38.9	2.0	1.000270
5500.0	828.8	22.3	8.3	40.7	972.3	671.3	9.5	2.6	1.000264
6000.0	814.2	21.1	7.5	41.5	959.3	669.9	358.1	3.4	1.000259
6500.0	799.8	19.9	6.7	42.3	946.4	668.4	14.7	3.4	1.000254
7000.0	785.7	18.7	5.9	43.0	933.7	667.0	25.3	3.3	1.000249
7500.0	771.8	17.5	5.0	43.8	921.2	665.5	18.2	2.5	1.000245
8000.0	758.1	16.2	4.2	44.6	908.9	664.1	345.8	1.7	1.000240
8500.0	744.8	15.0	3.3	45.3	896.8	662.6	284.0	3.0	1.000235
9000.0	731.6	13.8	2.4	46.1	884.8	661.2	271.2	5.2	1.000231
9500.0	718.7	12.6	1.6	46.9	873.0	659.7	271.0	7.0	1.000226
10000.0	706.0	11.4	.7	47.6	861.4	658.3	269.7	8.7	1.000222
10500.0	693.3	10.1	-.1	48.9	849.7	656.8	265.7	9.9	1.000218
11000.0	680.6	8.8	-.8	50.6	838.1	655.2	261.2	11.0	1.000214
11500.0	668.1	7.5	-1.6	52.3	826.6	653.7	253.0	11.6	1.000210
12000.0	655.9	6.3	-2.4	54.0	815.3	652.2	246.6	12.4	1.000207
12500.0	643.9	5.0	-3.1	55.7	804.2	650.6	244.4	13.1	1.000203
13000.0	632.1	3.7	-4.0	57.4	793.2	649.1	242.5	14.1	1.000199
13500.0	620.3	2.2	-4.8	59.4	782.6	647.3	240.7	15.8	1.000196
14000.0	608.7	.7	-5.8	61.6	772.3	645.5	239.3	17.9	1.000192
14500.0	597.3	-.8	-6.8	63.8	762.1	643.7	238.0	20.4	1.000189
15000.0	586.0	-2.3	-7.8	66.0	752.1	641.9	240.1	22.6	1.000185
15500.0	574.9	-3.5	-10.6	57.6	741.3	640.3	245.1	24.6	1.000179
16000.0	563.9	-4.7	-13.7	49.1	730.6	638.8	249.2	25.0	1.000174
16500.0	553.1	-5.8	-16.9	41.0	720.1	637.3	253.4	22.7	1.000169
17000.0	542.4	-7.0	-17.7	42.0	709.2	635.9	256.5	21.0	1.000166
17500.0	531.8	-8.2	-18.5	43.0	698.5	634.5	257.6	19.9	1.000163
18000.0	521.5	-9.3	-19.3	43.9	688.0	633.1	255.6	20.0	1.000160
18500.0	511.4	-10.5	-20.1	44.9	677.6	631.7	251.7	21.0	1.000158
19000.0	501.4	-11.6	-20.9	45.9	667.4	630.3	250.4	20.6	1.000155
19500.0	491.6	-11.6	-22.9	38.6	654.4	630.2	250.2	19.3	1.000151
20000.0	481.8	-12.4	-23.8	37.8	643.4	629.2	254.6	18.7	1.000148
20500.0	472.2	-13.5	-24.5	38.8	633.1	628.0	261.0	18.6	1.000146
21000.0	462.8	-14.5	-25.2	39.8	623.0	626.7	263.1	19.4	1.000143
21500.0	453.6	-15.6	-25.8	40.8	613.1	625.4	263.8	20.4	1.000141
22000.0	444.5	-16.6	-26.5	41.8	603.3	624.2	264.7	21.9	1.000138
22500.0	435.6	-17.7	-27.2	42.8	593.7	622.9	265.4	23.5	1.000136
23000.0	427.0	-18.7	-27.9	43.8	584.2	621.6	263.1	24.2	1.000134

STATION ALTITUDE 3989.00 FEET MSL
3 JUNE 81 0847 HRS MDT
ASCENSION NO. 369

UPPER AIR DATA
15400203G9
WHITE SANDS

TABLE 7 CON'T

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
23500.0	410.4	-19.7	-26.7	44.8	575.0	620.3	260.3	24.7	1.000131
24000.0	410.0	-21.0	-28.0	53.2	566.1	618.8	259.1	25.5	1.000130
24500.0	401.6	-22.3	-27.3	63.9	557.5	617.2	258.6	26.4	1.000128
25000.0	393.3	-23.5	-27.9	66.8	548.6	615.7	261.4	26.8	1.000126
25500.0	385.1	-24.7	-28.9	67.9	539.7	614.2	265.2	27.3	1.000124
26000.0	377.1	-25.8	-29.8	68.9	531.0	612.8	266.5	26.7	1.000121
26500.0	369.3	-27.0	-30.8	69.9	522.4	611.4	267.3	25.9	1.000119
27000.0	361.6	-28.2	-31.8	71.0	514.0	609.9	267.3	25.5	1.000117
27500.0	354.1	-29.3	-32.7	72.0	505.7	608.5	267.1	25.3	1.000115
28000.0	346.6	-30.8	-34.3	70.8	498.0	606.6	267.5	25.4	1.000113
28500.0	339.2	-32.2	-35.9	69.7	490.4	604.8	268.0	25.8	1.000111
29000.0	332.0	-33.7	-37.4	68.6	482.9	602.9	267.7	25.7	1.000109
29500.0	324.9	-34.9	-38.9	66.5	475.0	601.3	267.0	25.6	1.000107
30000.0	317.9	-36.0	-40.4	63.6	466.8	600.0	265.8	23.6	1.000105
30500.0	311.0	-37.1	-41.8	60.7	458.8	598.6	264.3	21.3	1.000103
31000.0	304.2	-38.1	-43.3	57.8	450.9	597.3	261.2	20.5	1.000101
31500.0	297.6	-39.2	-44.6	55.9	443.0	595.9	257.5	19.8	1.000099
32000.0	291.0	-40.3	-45.7	55.7	435.3	594.5	247.9	21.7	1.000098
32500.0	284.5	-41.4	-46.7	55.5	427.7	593.1	240.0	23.9	1.000096
33000.0	278.2	-42.5	-47.8	55.3	420.2	591.7	233.1	25.4	1.000094
33500.0	272.1	-43.6	-48.9	55.1	412.9	590.3	227.5	27.0	1.000092
34000.0	266.0	-44.8	-50.8	50.3**	405.8	588.8	224.4	28.0	1.000091
34500.0	260.0	-46.2	-55.9	31.8**	399.1	587.9	221.6	29.1	1.000089
35000.0	254.1	-47.6	-63.8	13.3**	392.5	585.1	219.7	30.3	1.000087
35500.0	248.3	-48.9			385.8	583.4	218.2	31.7	1.000086
36000.0	242.6	-50.1			378.8	581.9	217.7	34.0	1.000084
36500.0	236.9	-51.2			371.8	580.4	217.3	36.4	1.000083
37000.0	231.4	-52.3			365.1	578.9	216.8	39.0	1.000081
37500.0	226.0	-53.4			358.4	577.4	216.3	41.7	1.000080
38000.0	220.8	-54.6			351.9	576.0	215.5	41.2	1.000078
38500.0	215.6	-55.7			345.5	574.5	214.5	39.8	1.000077
39000.0	210.6	-56.8			339.2	573.0	214.8	36.6	1.000076
39500.0	205.7	-57.4			332.1	572.2	215.8	32.7	1.000074
40000.0	200.8	-57.4			324.2	572.2	219.6	30.1	1.000072
40500.0	196.0	-56.8			315.7	573.0	225.2	28.4	1.000070
41000.0	191.4	-56.9			308.3	572.9	232.0	27.2	1.000069
41500.0	186.9	-57.2			301.4	572.5	239.5	26.6	1.000067
42000.0	182.5	-56.6			293.6	573.2	248.2	25.8	1.000065
42500.0	178.1	-56.1			285.9	574.0	259.0	24.9	1.000064
43000.0	173.9	-55.8			278.8	574.4	267.8	24.8	1.000062

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3989.00 FEET MSL
3 JUNE 81 0847 HRS MDT
ASCENSION NO. 369

UPPER AIR DATA
1540020369
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

TABLE 7 CON'T

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
43500.0	169.8	-56.2			272.7	573.9	269.9	24.6	1.000061
44000.0	165.8	-56.5			266.6	573.5	272.1	24.4	1.000059
44500.0	161.9	-56.3			260.1	573.7	271.2	23.6	1.000058
45000.0	158.1	-56.0			253.7	574.0	269.8	22.6	1.000056
45500.0	154.4	-56.3			247.9	573.8	271.8	20.8	1.000055
46000.0	150.7	-56.5			242.4	573.4	279.3	18.2	1.000054
46500.0	147.1	-57.0			237.1	572.8	289.1	15.9	1.000053
47000.0	143.6	-57.5			232.0	572.1	284.7	14.2	1.000052
47500.0	140.2	-57.9			227.0	571.5	278.1	12.6	1.000051
48000.0	136.9	-58.4			222.1	570.9	269.4	12.3	1.000049
48500.0	133.6	-58.9			217.3	570.2	261.2	13.8	1.000048
49000.0	130.4	-59.4			212.6	569.6	254.6	15.5	1.000047
49500.0	127.3	-59.9			208.0	568.9	248.1	15.5	1.000046
50000.0	124.3	-60.0			203.1	568.8	241.3	15.4	1.000045
50500.0	121.3	-60.0			198.3	568.7	235.2	15.7	1.000044
51000.0	118.4	-60.1			193.6	568.7	232.3	16.6	1.000043
51500.0	115.6	-60.1			189.0	568.6	229.7	17.7	1.000042
52000.0	112.8	-60.2			184.5	568.5	232.1	18.3	1.000041
52500.0	110.1	-60.3			180.1	568.4	237.6	18.7	1.000040
53000.0	107.4	-60.3			175.8	568.4	242.8	19.3	1.000039
53500.0	104.9	-60.2			171.5	568.5	243.6	17.3	1.000038
54000.0	102.3	-60.1			167.3	568.7	243.5	14.8	1.000037
54500.0	99.9	-60.0			163.2	568.8	243.2	12.1	1.000036
55000.0	97.5	-60.0			159.3	568.8	237.2	6.5	1.000035
55500.0	95.2	-60.0			155.5	568.8	180.8	1.5	1.000035
56000.0	92.9	-60.0			151.8	568.8	93.2	4.1	1.000034
56500.0	90.6	-60.0			148.1	568.8	105.7	5.8	1.000033
57000.0	88.5	-60.6			145.0	568.0	109.6	7.5	1.000032
57500.0	86.3	-61.9			142.3	566.3	120.8	7.7	1.000032
58000.0	84.2	-63.2			139.7	564.5	136.5	7.5	1.000031
58500.0	82.2	-63.1			136.3	564.6	148.3	7.9	1.000030
59000.0	80.2	-62.1			132.4	565.9	133.2	8.1	1.000029
59500.0	78.3	-61.1			128.6	567.3	119.8	8.9	1.000029
60000.0	76.4	-61.1			125.5	567.3	114.9	9.9	1.000028
60500.0	74.5	-61.3			122.6	567.0	113.4	11.0	1.000027
61000.0	72.7	-61.6			119.8	566.6	111.9	11.3	1.000027
61500.0	71.0	-61.9			117.0	566.3	109.2	9.6	1.000026
62000.0	69.3	-61.8			114.2	566.3	105.3	7.9	1.000025
62500.0	67.6	-61.4			111.3	566.8	93.6	6.9	1.000025
63000.0	66.0	-61.1			108.4	567.4	77.5	6.6	1.000024

STATION ALTITUDE 5089.00 FEET MSL
3 JUNE 81 0847 HRS MDT
ASCENSION NO. 369

UPPER AIR DATA
154002036
WHITE SANDS

TABLE 7 CON'T

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
63500.0	64.4	-60.7			105.6	567.9	61.3	6.8	1.000024
64000.0	62.9	-60.3			102.9	568.4	66.0	8.4	1.000023
64500.0	61.4	-59.9			100.3	568.9	71.8	10.2	1.000022
65000.0	59.9	-59.5			97.7	569.4	75.7	12.1	1.000022
65500.0	58.5	-59.1			95.2	569.9	89.7	12.7	1.000021
66000.0	57.1	-58.7			92.8	570.5	102.4	14.0	1.000021
66500.0	55.7	-58.3			90.4	571.0	111.9	15.6	1.000020
67000.0	54.4	-58.0			88.1	571.5	115.1	15.6	1.000020
67500.0	53.1	-57.6			85.8	572.0	118.2	15.6	1.000019
68000.0	51.8	-57.2			83.6	572.5	115.8	15.8	1.000019
68500.0	50.6	-56.8			81.5	573.0	103.3	16.8	1.000018
69000.0	49.4	-56.4			79.4	573.5	92.7	18.4	1.000018
69500.0	48.2	-56.1			77.4	573.9	88.1	19.8	1.000017
70000.0	47.1	-55.8			75.5	574.3	87.6	20.6	1.000017
70500.0	46.0	-55.5			73.7	574.7	87.0	21.3	1.000016
71000.0	44.9	-55.2			71.8	575.1	87.4	20.8	1.000016
71500.0	43.9	-54.9			70.0	575.5	88.2	19.9	1.000016
72000.0	42.8	-54.6			68.3	575.9	89.1	19.0	1.000015
72500.0	41.8	-54.3			66.6	576.3	88.3	19.0	1.000015
73000.0	40.9	-54.0			65.0	576.7	87.2	19.2	1.000014
73500.0	39.9	-53.5			63.3	577.4	86.3	19.5	1.000014
74000.0	39.0	-53.0			61.7	578.0	86.3	19.7	1.000014
74500.0	38.1	-52.5			60.2	578.7	86.3	19.9	1.000013
75000.0	37.2	-52.0			58.7	579.4	86.1	20.2	1.000013
75500.0	36.4	-51.5			57.2	580.0	84.9	20.2	1.000013
76000.0	35.6	-51.0			55.7	580.7	83.8	20.2	1.000012
76500.0	34.7	-50.4			54.3	581.4	82.7	20.3	1.000012
77000.0	33.9	-49.9			53.0	582.1	82.1	20.3	1.000012
77500.0	33.2	-49.4			51.6	582.7	81.6	20.4	1.000011
78000.0	32.4	-48.9			50.3	583.4	81.1	21.3	1.000011
78500.0	31.7	-48.4			49.1	584.1	80.9	23.4	1.000011
79000.0	30.9	-47.9			47.8	584.7	80.7	25.5	1.000011
79500.0	30.2	-47.4			46.6	585.4	82.7	27.1	1.000010
80000.0	29.5	-46.9			45.5	586.0	86.1	28.3	1.000010
80500.0	28.9	-46.5			44.4	586.5	89.1	29.7	1.000010
81000.0	28.2	-46.1			43.3	587.0	91.3	30.0	1.000010
81500.0	27.6	-45.7			42.3	587.5	93.3	29.8	1.000009
82000.0	27.0	-45.3			41.3	588.0	95.3	29.8	1.000009
82500.0	26.4	-44.9			40.3	588.6	97.3	29.4	1.000009
83000.0	25.8	-44.5			39.3	589.1	99.3	29.1	1.000009

STATION ALTITUDE 3989.00 FEET MSL
3 JUNE 81 0847 HRS MDT
ASCENSION NO. 369

UPPER AIR DATA
1540020369
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

TABLE 7 CON'T

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
83500.0	25.2	-44.1			38.4	589.6	101.4	28.8	1.000009
84000.0	24.7	-43.7			37.5	590.1	103.2	28.6	1.000008
84500.0	24.1	-43.3			36.6	590.7	105.0	28.5	1.000008
85000.0	23.6	-42.9			35.7	591.2	106.5	28.5	1.000008
85500.0	23.1	-42.5			34.9	591.7	104.6	29.0	1.000008
86000.0	22.6	-42.1			34.0	592.2	102.9	29.6	1.000008
86500.0	22.1	-41.7			33.2	592.7	101.4	30.0	1.000007
87000.0	21.6	-41.3			32.4	593.2	101.0	29.8	1.000007
87500.0	21.1	-40.9			31.6	593.8	100.6	29.6	1.000007
88000.0	20.6	-40.5			30.9	594.3	99.6	29.2	1.000007
88500.0	20.2	-40.0			30.1	594.8	96.8	28.0	1.000007
89000.0	19.7	-39.9			29.5	595.0	93.8	26.9	1.000007
89500.0	19.3	-39.8			28.8	595.1	90.8	25.9	1.000006
90000.0	18.9	-39.8			28.2	595.1	88.6	25.0	1.000006
90500.0	18.5	-39.8			27.6	595.2	86.3	24.2	1.000006
91000.0	18.1	-39.7			26.9	595.2	83.5	23.5	1.000006
91500.0	17.7	-39.7			26.4	595.3	79.7	23.2	1.000006
92000.0	17.3	-39.7			25.8	595.3	75.8	23.0	1.000006
92500.0	16.9	-39.6			25.2	595.3	72.3	23.2	1.000006
93000.0	16.5	-39.6			24.7	595.4	70.4	24.4	1.000005
93500.0	16.2	-39.5			24.1	595.4	68.8	25.6	1.000005
94000.0	15.8	-39.5			23.6	595.5	68.2	26.6	1.000005
94500.0	15.5	-39.5			23.1	595.5	71.7	26.7	1.000005
95000.0	15.1	-39.4			22.6	595.6	75.2	26.8	1.000005
95500.0	14.8	-39.4			22.1	595.6	78.7	27.0	1.000005
96000.0	14.5	-39.4			21.6	595.7	83.1	27.0	1.000005
96500.0	14.2	-39.3			21.1	595.7	87.5	27.1	1.000005
97000.0	13.9	-39.3			20.6	595.8	91.5	27.4	1.000005
97500.0	13.6	-39.2			20.2	595.8	93.9	28.0	1.000004
98000.0	13.3	-39.2			19.7	595.9	96.3	28.5	1.000004
98500.0	13.0	-38.9			19.3	596.3	98.5	29.4	1.000004
99000.0	12.7	-38.5			18.8	596.8	100.6	31.4	1.000004
99500.0	12.4	-38.0			18.4	597.4	102.4	33.5	1.000004
100000.0	12.2	-37.6			18.0	597.9	103.8	35.6	1.000004
100500.0	11.9	-37.2			17.6	598.4	102.9	36.9	1.000004
101000.0	11.6	-36.8			17.1	598.9	102.1	38.1	1.000004
101500.0	11.4	-36.4			16.7	599.5	101.2	39.3	1.000004
102000.0	11.1	-36.0			16.4	600.0	97.2	39.0	1.000004
102500.0	10.9	-35.5			16.0	600.5	93.2	38.8	1.000004
103000.0	10.7	-35.1			15.6	601.0	89.1	38.8	1.000003

STATION ALTITUDE 3989.00 FEET MSL
3 JUNE 81 0847 HRS MDT
ASCENSION NO. 369

UPPER AIR DATA
154002036G
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

TABLE 7 CON'T

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
103500.0	10.4	-34.7			15.2	601.6	89.3	39.8	1.000003
104000.0	10.2	-34.3			14.9	602.1	89.6	40.8	1.000003
104500.0	10.0	-33.9			14.5	602.6	89.9	41.8	1.000003
105000.0	9.8	-33.3			14.2	603.3	91.7	40.7	1.000003
105500.0	9.6	-32.8			13.9	604.0	93.8	39.5	1.000003
106000.0	9.4	-32.2			13.5	604.7	95.9	38.4	1.000003
106500.0	9.2	-31.6			13.2	605.4			1.000003
107000.0	9.0	-31.1			12.9	606.1			1.000003
107500.0	8.8	-30.5			12.6	606.9			1.000003
108000.0	8.6	-29.9			12.3	607.6			1.000003
108500.0	8.4	-29.4			12.0	608.3			1.000003

STATION ALTITUDE 3989.00 FEET MSL
3 JUNE 81 0847 HRS MDT
ASCENSION NO. 369

MANDATORY LEVELS
1540020369
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

TABLE 8

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS
850.0	4784.	21.6	8.1	42.	55.3	1.9
800.0	6511.	19.9	6.7	42.	15.1	3.4
750.0	8323.	15.5	3.6	45.	297.0	2.3
700.0	10228.	10.8	.2	48.	267.7	9.3
650.0	12238.	5.6	-2.7	55.	245.5	12.7
600.0	14366.	-.4	-6.5	63.	238.3	19.8
550.0	16625.	-6.2	-17.2	41.	254.8	22.1
500.0	19047.	-11.8	-21.0	46.	250.3	20.4
450.0	21679.	-16.0	-26.1	41.	264.2	21.0
400.0	24556.	-22.6	-27.2	66.	256.5	20.5
350.0	27725.	-30.1	-33.6	71.	267.2	25.3
300.0	31257.	-38.8	-44.2	56.	259.2	20.0
250.0	35282.	-48.6			218.5	31.1
200.0	39986.	-57.4			220.3	29.9
175.0	42763.	-55.7			266.8	24.8
150.0	45977.	-56.6			280.7	17.8
125.0	49739.	-59.9			243.2	15.4
100.0	54307.	-60.0			243.3	12.5
80.0	58854.	-62.0			132.6	8.2
70.0	61570.	-62.0			107.4	8.7
60.0	64717.	-59.5			75.1	11.8
50.0	68485.	-56.6			98.6	17.4
40.0	73160.	-53.6			86.4	19.4
30.0	79318.	-47.2			83.6	27.4
25.0	83306.	-43.9			101.9	28.7
20.0	88265.	-39.9			96.0	27.7
15.0	94720.	-39.4			76.2	26.9
10.0	103905.	-33.9			89.9	41.6

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4051.37 FEET MSL
3 JUNE 81 1015 HRS MDT
ASCENSION NO. 113

SIGNIFICANT LEVEL DATA
1540186113
LC-37
TABLE 9

GEODETIC COORDINATES
32.40175 LAT DEG
106.31232 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT
872.7	4051.4	25.4	7.1	31.0
857.4	4559.5	23.4	1.7	24.0
850.0	4807.5	23.4	1.1	23.0
724.6	9299.0	13.6	-2.3	33.0
700.0	10250.4	11.0	-2.4	39.0
652.0	12177.8	5.0	-4.0	52.0
591.2	14772.3	-2.0	-8.3	62.0
582.6	15154.9	-3.0	-9.0	63.0
574.4	15523.8	-3.6	-16.5	36.0
549.2	16685.3	-5.4	-25.3	19.0
500.0	19076.8	-12.0	-30.8	19.0
492.6	19451.7	-12.4	-31.7	18.0
485.0	19842.4	-12.4	-32.3	17.0
461.8	21067.9	-15.0	-34.5	17.0
446.6	21897.4	-17.0	-28.2	37.0
431.8	22726.6	-18.8	-29.0	40.0
424.4	23149.9	-19.5	-33.7	27.0
400.0	24586.8	-23.3	-33.3	39.0
392.6	25035.6	-24.5	-33.4	43.0
381.2	25740.8	-25.3	-38.1	29.0
360.8	27046.8	-28.4	-43.0	23.0
321.2	29752.3	-35.2	-45.7	33.0
315.0	30198.5	-36.3	-45.2	39.0
308.6	30666.0	-37.7	-45.0	46.0
300.0	31305.9	-39.1	-45.5	50.0

STATION ALTITUDE 4051.37 FEET MSL
3 JUNE 81 1015 HRS MDT
ASCENSION NO. 113

UPPER AIR DATA
1540180113
LC-37

GEODETIC COORDINATES
32.40175 LAT DEG
106.31232 LON DEG

TABLE 10

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
4051.4	872.7	25.4	7.1	31.0	1013.9	674.6	60.0	3.1	1.000269
4500.0	859.2	23.6	2.4	24.8	1005.3	672.2	41.9	3.7	1.000255
5000.0	844.2	23.0	1.0	23.4	990.2	671.4	28.7	4.7	1.000249
5500.0	829.3	21.9	.7	24.5	976.4	670.2	20.4	5.9	1.000246
6000.0	814.7	20.8	.4	25.7	962.7	668.9	15.7	6.8	1.000242
6500.0	800.4	19.7	.1	26.8	949.3	667.7	10.9	5.9	1.000239
7000.0	786.3	18.6	-.3	27.9	936.1	666.4	16.7	4.7	1.000235
7500.0	772.4	17.5	-.7	29.0	923.1	665.1	347.4	1.6	1.000232
8000.0	758.8	16.4	-1.1	30.1	910.3	663.9	247.8	2.5	1.000228
8500.0	745.5	15.3	-1.6	31.2	897.7	662.6	240.0	5.6	1.000225
9000.0	732.3	14.3	-2.1	32.3	885.3	661.3	244.5	7.6	1.000221
9500.0	719.3	13.1	-2.3	34.3	873.2	660.0	251.1	9.0	1.000218
10000.0	706.4	11.7	-2.3	37.4	861.6	658.4	255.3	9.8	1.000216
10500.0	693.6	10.2	-2.5	40.7	850.3	656.7	258.8	10.2	1.000213
11000.0	680.9	8.7	-2.9	44.1	839.4	654.9	253.7	10.9	1.000211
11500.0	668.5	7.1	-3.3	47.4	828.7	653.1	246.6	11.8	1.000208
12000.0	656.3	5.6	-3.8	50.8	818.1	651.2	240.4	12.5	1.000205
12500.0	644.1	4.1	-4.5	53.2	807.2	649.5	235.8	13.3	1.000201
13000.0	632.1	2.8	-5.3	55.2	796.0	647.9	237.8	14.4	1.000198
13500.0	620.3	1.4	-6.1	57.1	785.1	646.3	238.2	16.4	1.000194
14000.0	608.7	.1	-7.0	59.0	774.3	644.7	236.7	20.1	1.000191
14500.0	597.3	-1.3	-7.8	61.0	763.7	643.1	238.8	22.9	1.000188
15000.0	586.1	-2.6	-8.7	62.6	753.1	641.5	243.0	25.0	1.000184
15500.0	574.9	-3.6	-15.9	37.7	742.1	640.0	245.1	24.0	1.000175
16000.0	563.9	-4.3	-19.6	29.0	730.2	639.0	246.9	22.0	1.000169
16500.0	553.1	-5.1	-23.6	21.7	718.5	638.0	245.6	19.6	1.000165
17000.0	542.5	-6.3	-26.0	19.0	707.7	636.6	244.4	18.0	1.000162
17500.0	531.9	-7.6	-27.2	19.0	697.6	634.9	245.8	20.1	1.000159
18000.0	521.6	-9.0	-28.4	19.0	687.7	633.3	245.6	22.0	1.000156
18500.0	511.4	-10.4	-29.5	19.0	677.9	631.6	243.7	23.9	1.000154
19000.0	501.5	-11.8	-30.7	19.0	668.2	629.9	245.0	23.7	1.000151
19500.0	491.7	-12.4	-31.8	17.9	656.6	629.2	247.9	22.5	1.000149
20000.0	482.0	-12.7	-32.6	17.0	644.5	628.8	252.0	18.8	1.000146
20500.0	472.4	-13.8	-33.5	17.0	634.4	627.5	255.3	15.7	1.000143
21000.0	463.1	-14.9	-34.4	17.0	624.4	626.2	256.8	13.0	1.000141
21500.0	453.8	-16.0	-30.5	27.4	614.7	624.8	257.4	13.8	1.000140
22000.0	444.7	-17.2	-26.3	37.4	605.1	623.4	257.4	16.1	1.000138
22500.0	435.8	-18.3	-28.8	39.2	595.4	622.1	258.7	18.5	1.000136
23000.0	427.0	-19.3	-31.8	31.6	585.7	620.9	259.8	20.9	1.000133
23500.0	418.3	-20.4	-33.4	29.9	576.4	619.4	263.7	22.0	1.000131

STATION ALTITUDE 4051.37 FEET MSL
3 JUNE 81 1015 HRS MDT
ASCENSION NO. 113

UPPER AIR DATA
1540180113
LC-37

GEODETIC COORDINATES
32.40175 LAT DEG
106.31232 LON DEG

TABLE 10 CON'T

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
24000.0	409.8	-21.7	-33.3	34.1	567.7	617.8	267.0	23.1	1.000129
24500.0	401.4	-23.1	-33.3	38.3	559.0	616.2	268.3	23.7	1.000127
25000.0	393.2	-24.4	-33.4	42.7	550.5	614.5	269.4	24.1	1.000125
25500.0	385.1	-25.0	-36.3	33.8	540.5	613.7	268.1	23.2	1.000122
26000.0	377.1	-25.9	-39.0	27.8	531.2	612.6	266.7	22.3	1.000120
26500.0	369.2	-27.1	-40.9	25.5	522.6	611.1	267.5	21.1	1.000117
27000.0	361.5	-28.3	-42.8	23.2	514.3	609.7	268.4	20.1	1.000115
27500.0	353.8	-29.5	-43.3	24.7	505.9	608.1	269.0	20.4	1.000114
28000.0	346.3	-30.8	-43.7	26.5	497.7	606.5	268.0	20.4	1.000112
28500.0	339.0	-32.1	-44.2	28.4	489.7	604.9	264.9	20.1	1.000110
29000.0	331.8	-33.3	-44.8	30.2	481.8	603.4	260.6	21.2	1.000108
29500.0	324.7	-34.6	-45.4	32.1	474.1	601.8	256.5	23.0	1.000106
30000.0	317.7	-35.8	-45.4	36.3	466.3	600.2			1.000105
30500.0	310.9	-37.2	-45.0	43.5	458.9	598.5			1.000103
31000.0	304.1	-38.4	-45.3	48.1	451.3	596.9			1.000101

STATION ALTITUDE 4051.37 FEET MSL
3 JUNE 81 1045 HRS MDT
ASCENSION NO. 113

MANDATORY LEVELS
15401 80113
LC-37

GEODETIC COORDINATES
32.40175 LAT DEG
106.31232 LON DEG

TABLE 11

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS
850.0	4804.	23.4	1.1	23.	33.1	4.3
800.0	6526.	19.7	.1	27.	17.0	5.9
750.0	8335.	15.7	-1.4	31.	241.4	4.6
700.0	10240.	11.0	-2.4	39.	257.0	10.0
650.0	12247.	4.8	-4.1	52.	237.6	12.9
600.0	14368.	-.9	-7.6	60.	237.7	22.3
550.0	16626.	-5.3	-25.0	20.	245.2	19.0
500.0	19050.	-12.0	-30.8	19.	245.4	23.6
450.0	21677.	-16.5	-29.2	32.	257.4	14.7
400.0	24546.	-23.3	-33.3	39.	268.5	23.7
350.0	27711.	-30.2	-43.5	26.	269.2	20.5
300.0	31243.	-39.1	-45.5	50.		

STATION ALTITUDE 3989.00 FEET MSL
3 JUNE 81 1230 GMT
ASCENSION NO. 370

SIGNIFICANT LEVEL DATA
154000370
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

TABLE 12

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	DEWPOINT	REL.HUM. PERCENT
874.0	3989.0	32.0	6.2	20.0
850.0	4804.7	28.1	8.4	29.0
796.4	6681.5	21.9	5.3	34.0
700.0	10296.3	12.0	-1.2	40.0
577.4	15457.9	-2.8	-8.2	66.0
569.0	15939.0	-3.6	-10.6	58.0
564.2	16059.7	-3.9	-14.3	44.0
534.6	17048.7	-7.7	-21.1	33.0
519.0	18252.5	-9.9	-18.1	51.0
500.0	19147.3	-11.5	-25.2	31.0
455.2	21498.2	-15.1	-31.1	24.0
439.6	22363.3	-16.8	-21.5	67.0
432.2	22781.6	-18.1	-23.7	61.0
417.2	23646.3	-20.5	-24.5	70.0
400.0	24666.5	-23.2	-29.1	58.0
381.2	25821.1	-25.6	-37.1	33.0
300.0	31378.5	-39.5	-48.8	36.0

STATION ALTITUDE 3989.00 FEET MSL
3 JUNE 81 1230 HRS MDT
ASCENSION NO. 370

UPPER AIR DATA
1540020370
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

TABLE 13

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
3989.0	874.0	32.0	6.2	20.0	993.7	681.9	240.0	4.1	1.000260
4000.0	873.7	31.9	6.3	20.1	993.5	681.9	239.9	4.1	1.000260
4500.0	858.9	29.6	7.8	25.6	983.8	679.4	233.2	4.0	1.000263
5000.0	844.3	27.5	8.1	29.5	973.7	677.1	226.3	3.9	1.000262
5500.0	829.7	25.8	7.3	30.9	962.4	675.2	219.3	3.9	1.000258
6000.0	815.5	24.2	6.5	32.2	951.2	673.2	212.5	4.0	1.000254
6500.0	801.4	22.5	5.7	33.5	940.3	671.3	206.1	4.1	1.000249
7000.0	787.4	21.0	4.8	34.5	928.6	669.6	213.5	5.5	1.000245
7500.0	773.5	19.7	3.9	35.4	916.6	668.0	228.0	6.6	1.000240
8000.0	759.8	18.3	3.1	36.2	904.8	666.3	236.2	7.1	1.000236
8500.0	746.3	16.9	2.2	37.0	893.1	664.7	239.6	7.5	1.000231
9000.0	733.1	15.6	1.2	37.8	881.6	663.1	239.9	7.9	1.000227
9500.0	720.2	14.2	.3	38.7	870.3	661.5	234.9	8.8	1.000223
10000.0	707.4	12.8	-.6	39.5	859.1	659.8	235.6	9.9	1.000219
10500.0	694.7	11.4	-1.3	41.0	847.9	658.2	238.5	11.0	1.000215
11000.0	681.9	10.0	-1.8	43.5	836.5	656.5	242.9	12.4	1.000212
11500.0	669.3	8.5	-2.4	46.1	825.3	654.8	246.3	13.9	1.000208
12000.0	656.9	7.1	-3.0	48.6	814.2	653.1	248.0	15.5	1.000205
12500.0	644.8	5.7	-3.6	51.1	803.3	651.4	249.4	16.9	1.000202
13000.0	632.8	4.2	-4.3	53.6	792.6	649.7	250.6	18.0	1.000198
13500.0	621.1	2.8	-5.0	56.1	782.1	648.0	249.3	19.5	1.000195
14000.0	609.7	1.4	-5.8	58.7	771.7	646.3	246.6	21.5	1.000192
14500.0	598.4	-.1	-6.6	61.2	761.5	644.6	244.1	22.6	1.000189
15000.0	587.3	-1.5	-7.5	63.7	751.5	642.8	243.1	23.3	1.000185
15500.0	576.5	-2.9	-8.5	65.1	741.5	641.1	244.6	23.0	1.000182
16000.0	565.5	-3.8	-13.2	47.8	730.4	639.8	246.4	23.3	1.000174
16500.0	554.6	-5.1	-16.4	40.5	720.0	638.2	247.8	24.3	1.000169
17000.0	544.0	-6.5	-18.9	36.6	709.9	636.5	248.6	25.2	1.000165
17500.0	533.5	-7.8	-20.9	34.1	700.0	634.8	248.8	26.2	1.000162
18000.0	523.2	-9.2	-18.8	45.3	689.8	633.2	248.8	27.2	1.000161
18500.0	513.0	-10.3	-19.8	45.5	679.3	631.9	248.7	28.1	1.000158
19000.0	502.9	-11.2	-23.8	34.3	668.5	630.7	247.8	28.5	1.000154
19500.0	493.0	-12.0	-26.0	29.9	657.4	629.7	245.5	27.9	1.000150
20000.0	483.3	-12.8	-27.3	28.5	646.3	628.8	242.8	26.4	1.000148
20500.0	473.7	-13.6	-28.5	27.8	635.4	627.8	239.6	24.4	1.000145
21000.0	464.3	-14.3	-29.8	25.5	624.8	626.9	242.3	24.2	1.000142
21500.0	455.2	-15.1	-31.0	24.1	614.3	625.9	246.1	24.6	1.000139
22000.0	446.1	-16.1	-24.3	49.8	604.1	624.8	251.3	24.1	1.000139
22500.0	437.2	-17.2	-22.2	65.8	594.5	623.5	256.6	23.8	1.000138
23000.0	428.4	-18.7	-23.9	63.3	585.0	621.7	257.6	23.8	1.000136

STATION ALTITUDE 3989.00 FEET MSL
3 JUNE 81 1230 HRS MDT
ASCENSION NO. 370

UPPER AIR DATA
19400203?0
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

TABLE 13 CON'T

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
23500.0	419.7	-20.1	-24.4	68.5	577.3	620.0	258.5	23.8	1.000134
24000.0	411.2	-21.4	-26.1	65.8	568.6	618.3	260.1	24.7	1.000131
24500.0	402.8	-22.8	-28.4	60.0	560.0	616.6	261.7	25.7	1.000128
25000.0	394.5	-23.9	-31.2	50.8	551.1	615.2	264.5	26.2	1.000125
25500.0	386.3	-24.9	-34.6	40.0	542.0	613.9	268.2	26.3	1.000123
26000.0	378.3	-26.0	-37.4	33.1	533.2	612.5	270.8	26.5	1.000120
26500.0	370.2	-27.3	-38.5	33.4	524.5	610.9	271.2	26.3	1.000118
27000.0	362.3	-28.5	-39.5	33.6	515.9	609.4	271.2	26.1	1.000116
27500.0	354.6	-29.8	-40.6	33.9	507.5	607.8	269.1	25.5	1.000114
28000.0	347.0	-31.0	-41.6	34.2	499.3	606.2	267.4	24.9	1.000112
28500.0	339.6	-32.3	-42.7	34.4	491.2	604.6	270.1	24.6	1.000110
29000.0	332.4	-33.6	-43.7	34.7	483.2	603.1	272.1	24.2	1.000108
29500.0	325.3	-34.8	-44.8	35.0	475.4	601.5	269.0	22.8	1.000107
30000.0	318.4	-36.1	-45.9	35.3	467.7	599.9			1.000105
30500.0	311.6	-37.3	-46.9	35.5	460.2	598.3			1.000103
31000.0	304.9	-38.6	-48.0	35.8	452.8	596.7			1.000101

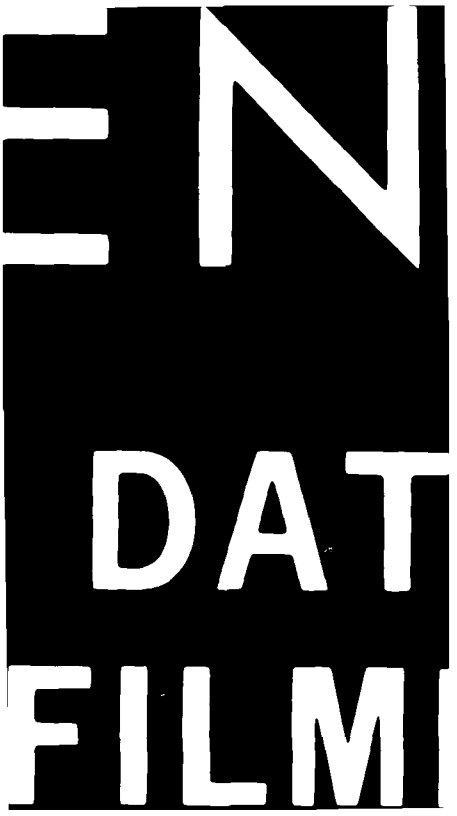
STATION ALTITUDE 3989.00 FEET MSL
3 JUNE 81 1230 HRS MDT
ASCENSION NO. 370

MANDATORY LEVELS
15400?6370
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

TABLE 14

PRESSURE	GEOPOTENTIAL	TEMPERATURE AIR	TEMPERATURE DEWPOINT	REL.HUM.	WIND DATA DIRECTION	WIND DATA SPEED
MILLIBARS	FEET	DEGREES CENTIGRADE		PERCENT	DEGREES(TN)	KNOTS
850.0	4801.	28.1	8.4	29.	229.1	3.9
800.0	6548.	22.3	5.6	34.	207.8	4.2
750.0	8372.	17.3	2.4	37.	239.1	7.4
700.0	10286.	12.0	-1.2	40.	237.4	10.5
650.0	12302.	6.3	-3.3	50.	248.9	16.5
600.0	14434.	.2	-6.5	61.	244.4	22.5
550.0	16698.	-5.7	-17.5	39.	248.4	24.7
500.0	19120.	-11.5	-25.2	31.	247.2	28.4
450.0	21750.	-15.7	-26.6	38.	248.9	24.3
400.0	24625.	-23.2	-29.1	58.	262.2	26.0
350.0	27788.	-30.6	-41.2	34.	267.7	25.1
300.0	31316.	-39.5	-48.8	36.		


EN
DAT
FILM